

CLAIMS APPENDIX

1. A system comprising:

an image forming device having direct network access and including an operation panel, the operation panel comprising a plurality of operations to be selected by a user;

a monitoring unit configured to monitor data of selecting of the plurality of operations of the operation panel by the user, including monitoring at least one of a sequence, timing, or frequency of selecting of the plurality of operations, and to generate a log of the monitored data, the log of the monitored data being in a form of a map mapping each of key data in a key portion of the map to respective value data in a corresponding value data portion;

a communicating unit configured to receive a command to send information based on the log of the monitored data, and to send the log-information of the monitored data through the direct network access, and

wherein the monitoring unit and communicating unit are self-contained in the image forming device prior to any initial external communication connection by the communication unit, and the monitoring unit is configured to generate the log of the monitored data without any initial external communication connection by the communicating unit.

2.-4. (Canceled).

5. A system according to Claim 1, wherein the communicating unit sends the log of the monitored data when the user exits operating the image forming device.

6. A system according to Claim 1, further comprising a setting unit configured to set a number of sessions of the image forming device to be executed by the user prior to the communicating unit communicating the log of the monitored data.

7. A system according to Claim 1, wherein the key data and the value data in the map both contain string data.

8. A system according to Claim 7, wherein the value data portion includes plural vectors in which each vector includes an array of strings.

9. A system according to any one of Claims 5-8, wherein the communicating unit communicates the log of the monitored data by Internet mail.

10. A system comprising:

an image forming device having direct network access and including an operation panel, the operation panel providing a plurality of operations to be selected by a user;

monitoring means for monitoring data of selecting of the plurality of operations of the operation panel by the user, including monitoring at least one of a sequence, timing, or frequency of selecting of the plurality of operations, and for generating a log of the monitored data, the log of the monitored data being in a form of a map mapping each of key data in a key portion of the map to respective value data in a corresponding value data portion;

communicating means for receiving a command to send information based on the log of the monitored data, and for sending the information of the monitored data through the direct network access, and

wherein the monitoring means and communicating means are self-contained in the image forming device prior to any initial external communication connection by the communicating means, and the monitoring means generates the log of the monitored data without any initial external communication connection by the communicating means.

11.-13. (Canceled).

14. A system according to Claim 10, wherein the communicating means sends the log of the monitored data when the user exits operating the image forming device.

15. A system according to Claim 10, further comprising a setting means for setting a number of sessions of the image forming device to be executed by the user prior to the communicating means communicating the log of the monitored data.

16. A system according to Claim 10, wherein the key data and the value data in the map both contain string data.

17. A system according to Claim 16, wherein the value data portion includes plural vectors in which each vector includes an array of strings.

18. A system according to any one of Claims 14-17, wherein the communicating means communicates the log of the monitored data by Internet mail.

19. A method of monitoring usage of an image forming device having network access and including an operation panel, the operation panel including a plurality of operations to be selected by a user, comprising:

monitoring data of selecting of the plurality of operations of the operation panel by the user, including monitoring at least one of a sequence, timing, or frequency of selecting of the plurality of operations;

generating a log of the monitored data, the log of the monitored data being in a form of a map mapping each of key data in a key portion of the map to respective value data in a corresponding value data portion; and

receiving a command to send information based on the log of the monitored data, and sending the log-information of the monitored data through the direct network access, and

wherein the monitoring and generating steps are performed in the image forming device and are performed without any initial external communication connection by the communicating unit prior to any initial external communication connection by the communication unit.

20.-22. (Canceled).

23. A method according to Claim 19, wherein the communicating step sends the log of the monitored data when the user exits operating the image forming device.

24. A method according to Claim 19, further comprising setting a number of sessions of the image forming device to be executed by the user prior to the communicating device communicating the log of the monitored data.

25. A method according to Claim 19, wherein the key data and the value data in the map both contain string data.

26. A method according to Claim 25, wherein the value data portion includes plural vectors in which each vector includes an array of strings.

27. A method according to any one of Claims 23-26, wherein the communicating step communicates the log of the monitored data by Internet mail.

28. A computer program product comprising:

a computer storage medium and a computer program code mechanism embedded in the computer storage medium for causing a computer to monitor a user's usage of an operation panel of an image forming device having direct network access, the operation panel comprising a plurality of operations to be selected by a user, comprising:

a first computer code device configured to monitor data of selecting of the plurality of operations of the operation panel by the user, including monitoring at least one of a sequence, timing, or frequency of selecting of the plurality of operations, and configured to generate a log of the monitored data, the log of the monitored data being in a form of a map mapping each of key data in a key portion of the map to respective value data in a corresponding value data portion;

a second computer code device configured to receive a command to send information based on the log of the monitored data, and to send the information of the monitored data through the direct network access, and

wherein the first computer program code executes the monitoring and generating in the image forming device and without any initial external communication connection by the communicating unit, and the first and second computer codes are self-contained in the device prior to any initial external communication connection by the communication unit.

29.-31. (Canceled).

32. A computer program product according to Claim 28, wherein the second computer code device is further configured to send the log of the monitored data when the user exits operating the image forming device.

33. A computer program product according to Claim 28, further comprising a third computer code device configured to set a number of sessions of the image forming device to be executed by the user prior to the second computer code device communicating the log of the monitored data.

34. A computer program product according to Claim 28, wherein the key data and the value data in the map both contain string data.

35. A computer program product according to Claim 34, wherein the value data portion includes plural vectors in which each vector includes an array of strings.

36. A computer program product according to any one of Claims 32-35, wherein the second computer code device is further configured to communicate the log of the monitored data by Internet mail.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

By virtue of similar subject matter the claims, the appeal in the present application may be considered related to appeals in U.S. application serial no. 09/440,692, 09/440,646, and 09/393,677.